(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



0.7 MAR 2005 Million Million Company (1916)

(43) International Publication Date 18 March 2004 (18.03.2004)

PCT

(10) International Publication Number WO 2004/022920 A1

| (51) | International Patent Classification7: | F01D 1/08, |
|------|---|-------------|
| | 25/00, H02P 9/14, H02K 17/42, F25B 11/02, | 1/04, 1/053 |

(21) International Application Number:

PCT/AU2003/001144

(22) International Filing Date:

5 September 2003 (05.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

| 521263 | 6 September 2002 (06.09.2002) | NZ |
|--------|--------------------------------|----|
| 521717 | 30 September 2002 (30.09.2002) | NZ |
| 523733 | 21 January 2003 (21.01.2003) | NZ |
| 524220 | 17 February 2003 (17.02.2003) | NZ |
| | | |

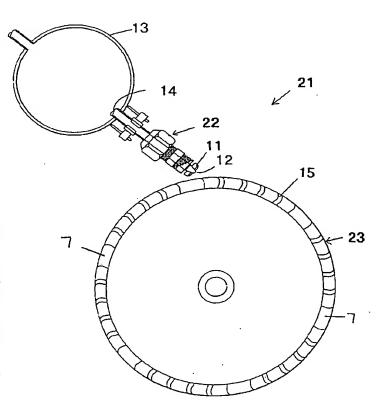
(71) Applicant and

(72) Inventor: DRYSDALE, Kenneth, William, Patterson [AU/AU]; 8A Elm Avenue, Belrose, Sydney, NSW (AU).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): EVES, Paul, Thomas [AU/AU]; 2 Meadow Road, Watanobbi. NSW (AU). CASEY, Robert, Thomas [AU/AU]; 4 Jingara Place, Sylvania, NSW (AU).
- (74) Agent: BALDWIN SHELSTON WATERS; P.O. Box 5999, Wellesley Street, Auckland (NZ).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ΛRIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: APPARATUS, METHOD AND SOFTWARE FOR USE WITH AN AIR CONDITIONING CYCLE



(57) Abstract: A turbine (21) for generating power includes a rotor (23) in a rotor chamber and at least one nozzle (22) for supplying a fluid to drive the rotor (23). The flow of the fluid from the nozzle exit (12) is periodically interrupted by at least one flow interrupter means (7, 11), thereby raising a pressure of the fluid inside the nozzle (22). Two such turbines (21) could be used in a thermodynamic cycle; the first turbine located downstream of a compressor and upstream of a heat exchanger and the second turbine located downstream of an evaporator and upstream of the compressor.